

## CLAIMS

We claim:

1. A method for drilling in a floor of an ocean from a structure floating at a surface of the ocean using a rotatable tubular and pressurized drilling fluid, comprising the steps of:

- positioning a housing above a portion of a riser;
- allowing the floating structure to move independent of the housing;
- communicating the pressurized drilling fluid from the structure to an annulus of the riser surrounding the rotatable tubular, comprising the steps of:
  - compensating for relative movement of the structure and the housing,
  - comprising the steps of:
    - attaching a flexible conduit between the housing and the floating structure; and
    - moving the pressurized drilling fluid through the flexible conduit to the housing, and
    - moving the pressurized drilling fluid in the housing into the annulus.

2. The method of claim 1, the step of positioning a housing above a portion of the riser comprising the step of:

- lowering the housing through a deck of the structure.

3. The method of claim 1, further comprising the step of:

- creating a mud cap at a predetermined downhole location of the annulus.

4. The method of claim 1, further comprising the steps of:

- moving the pressurized drilling fluid down the annulus; and
- returning a portion of the pressurized drilling fluid up the rotatable tubular.

5. A method for communicating drilling fluid from a structure floating at a surface of the ocean to a casing fixed relative to an ocean floor while rotating within the casing a tubular, comprising the steps of:

- fixing a housing with the casing adjacent a first level of the floating structure;
- allowing the floating structure to move independent of the housing;

moving the drilling fluid from a second level of the floating structure above the housing down the casing; and

rotating the tubular relative to the housing,

wherein a seal is within the housing, and

wherein the seal contacts and moves with the tubular while the tubular is rotating.

6. The method of claim 5, further comprising the step of:  
compensating for relative movement of the structure and the housing during the step of moving.
7. The method of claim 5, further comprising the step of:  
pressurizing the drilling fluid to a predetermined pressure as the drilling fluid flows into the casing.
8. The method of claim 5, further comprising the step of:  
creating a mud cap of a predetermined volume at a predetermined downhole location of the casing.
9. The method of claim 5, further comprising the step of:  
returning a portion of the drilling fluid up the tubular to the floating structure while rotating the tubular.
10. A method for drilling in a floor of an ocean from a structure floating at a surface of the ocean using a rotatable tubular and pressurized drilling fluid, comprising the steps of:  
positioning a housing above a portion of a riser;  
allowing the floating structure to move independent of the housing; and  
communicating the pressurized drilling fluid from the structure to an annulus of the riser surrounding the rotatable tubular, comprising the step of:  
moving the pressurized drilling fluid through a flexible conduit between the structure and the riser.

11. The method of claim 10, the step of communicating the pressurized drilling fluid further comprising the steps of:

- moving a predetermined volume of the pressurized drilling fluid down the annulus to a predetermined downhole location of the riser; and
- forming a mud cap at the predetermined downhole location of the riser.

12. The method of claim 10, the step of communicating the pressurized drilling fluid further comprising the steps of:

- moving the pressurized drilling fluid down the annulus of the riser; and
- returning a portion of the pressurized drilling fluid up the rotatable tubular to the floating structure.

13. A method for drilling in a floor of an ocean from a structure floating at a surface of the ocean using a rotatable tubular and pressurized drilling fluid, comprising the steps of:

- removably inserting a rotatable seal in a portion of a riser;
- allowing the floating structure to move independent of the riser;
- communicating the pressurized drilling fluid from the structure to an annulus of the riser surrounding the rotatable tubular;
- compensating for relative movement of the structure and the riser with a flexible conduit; and
- forming a mud cap from the pressurized drilling fluid at a predetermined downhole location of the riser.

14. A method for drilling in a floor of an ocean from a structure floating at a surface of the ocean using a rotatable tubular and pressurized drilling fluid, comprising the steps of:

- removably inserting a rotatable seal in a portion of a riser;
- allowing the floating structure to move independent of the riser;
- communicating the pressurized drilling fluid from the structure to an annulus of the riser surrounding the rotatable tubular;
- compensating for relative movement of the structure and the riser with a flexible conduit;
- moving the pressurized drilling fluid down the annulus; and

moving a portion of the pressurized drilling fluid up the rotatable tubular to the structure.

15. A system adapted for use with a structure for drilling in a floor of an ocean using a rotatable tubular and drilling fluid when the structure is floating at a surface of the ocean, the system comprising:

a housing adapted for positioning above a portion of a riser, the housing having a first housing opening to receive the drilling fluid from the structure, and  
an assembly removably positioned within the housing, the assembly having a sealing member that rotates relative to the housing and seals the tubular when the tubular is rotating;

wherein the first housing opening is in fluid communication with an annulus of the riser surrounding the rotatable tubular, and

wherein the floating structure moves independent of the assembly when the tubular is rotating.

16. The system of claim 15, further comprising a flexible conduit for communicating the drilling fluid from the structure to the first housing opening.

17. The system of claim 16, wherein the flexible conduit has a first end and a second end, the first end connected to the first housing opening and the second end connected to a device for pumping the drilling fluid into the housing.

18. The system of claim 15, wherein a portion of the housing extends above the surface of the ocean.

19. The system of claim 15, wherein the drilling fluid creates a mud cap of a predetermined volume at a predetermined downhole location within the annulus.

20. The system of claim 15,  
wherein the drilling fluid flows down the annulus to a downhole location, and  
wherein a portion of the drilling fluid returns from the downhole location up the rotatable tubular.